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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/840,924	04/25/2001	David A. Jackson	10473-670	6504

7590 04/05/2004

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Washington, DC 20005-3096

EXAMINER

NGUYEN, THU V

ART UNIT PAPER NUMBER

3661

DATE MAILED: 04/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicati n No.

09/840,924

Applicant(s)

JACKSON ET AL.

Examiner

Thu Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 December 2003.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 4,6,8-10,12-16,20,22,24-26,28,29,31 and 32 is/are pending in the application.  
4a) Of the above claim(s) 4,13,14,16,20,29,31 and 32 is/are withdrawn from consideration.  
5) ☒ Claim(s) 6,8-10,12,22,24-26 and 28 is/are allowed.  
6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.  
7) ☒ Claim(s) 15 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 30 October 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This application is in condition for allowance except for the presence of claims 4, 13-14, 16, 20, 29, and 31-32 to an invention non-elected with traverse in Paper No. 22. Applicant is given ONE MONTH or THIRTY DAYS from the date of this letter, whichever is longer, to cancel the noted claims or take other appropriate action (37 CFR 1.144). Failure to take action during this period will be treated as authorization to cancel the noted claims by Examiner's Amendment and pass the case to issue. Extensions of time under 37 CFR 1.136(a) will not be permitted since this application will be passed to issue.

The prosecution of this case is closed except for consideration of the above matter.

### ***Response to Arguments***

In response to applicant's argument on the election response submitted on December 31, 2003, currently the application contains 15 independent claims directed to six different species as indicated in the restriction requirement sent on December 1, 2003 (paper No. 21). The species were originally presented as dependent claims. Since the species were supposed to be obvious modification from one another, the examiner did not set forth restriction requirement. However, the applicant escalates complication of the application with challenges on every single species, by extending each species in independent claims, and by presenting the independent claims in various scopes. In view of the amendments submitted on October 30, 2002, April 2, 2003, and September 12, 2003, it appears the applicant does not agree that the species are obvious modification embodiments from one another. Since complication of the application has grown to

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a point the examiner is overwhelmed with undue burden to address and to support evidence to every single details in each embodiment, the examiner believes that restriction should be applied. Concerning claims 9-10, 12, 25-26, 28 which were indicated as allowable in the last office action issued on June 13, 2003, the examiner agrees to withdraw restriction on those species and will allow the claims together with the elected species II (claims 6, 8, 22, and 24). Claim 15 was objected in the last office action. The examiner agrees to allow the claims if it is incorporated in the independent claim 14 it depends on. Claim 31 were indicated as allowable subject matter. However, claim 31 is presented in different scope in the amendment submitted on September 12, 2003 from the combined claims 27-31 presented in the amendment submitted on April 2, 2003. Restriction to claim 31 is therefore applied, and allowability on claim 31 indicated in the office action issued on June 13, 2003 is withdrawn. This restriction requirement is made FINAL.

***Allowable Subject Matter***

1. Claims 6, 8, 9-10, 12, 22, 24-26, and 28 are allowed.
2. Claim 15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
3. The following is an examiner's statement of reasons for allowance:

Prior art of record does not disclose a method and system for determining alignment between the wheels of a vehicle in which the alignment status of the wheels is determined by comparing the right wheel base to a specified range, and comparing the left wheel base to a specified range taught in claims 6, 8, 22, and 24. Prior art of record does not disclose

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determining the positions of the wheels by imaging the targets indicating the position of the wheels; the front and rear wheel track, the front and rear center point of the front and rear wheel track, the interception point of a line from a one center point of the wheel track and perpendicular to the wheel track with the other wheel track; the offset between the interception point and the center point of the intercepted wheel track is calculated as taught in claims 9, and 25. Prior art of record, further, does not disclose calculating the first diagonal between the right front wheel and the left rear wheel, and the second diagonal between the left front wheel and the right rear wheel, the relationship between the front and rear wheel can be determined by comparing the difference between the first and the second diagonals to a specified range for the difference as taught in claims 12, and 28. Prior art of record, further, does not disclose calculating the first and second skew angles, and determining the relationship between the front and rear wheels by comparing the difference between the first and second skew angle to a specified range for the difference as taught in the combination of claims 14-15.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

(703) 305-7687, (for formal communications intended for entry)

**Or:**

(703) 305-7687 (for informal or draft communications, please label

"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park V, 2451  
Crystal Drive, Arlington. VA., Seventh Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the  
examiner should be directed to Thu Nguyen whose telephone number is (703) 306-9130. The  
examiner can normally be reached on Monday-Thursday from 8:00 am to 6:00 pm ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's  
supervisor, Thomas Black, can be reached on (703) 305-8233. The fax phone number for this  
Group is (703) 305-7687.

Any inquiry of a general nature or relating to the status of this application or proceeding  
should be directed to the Group receptionist whose telephone number is (703) 308-1111.



**THU V. NGUYEN**  
**PRIMARY EXAMINER**

March 31, 2004